



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/808,198

03/24/2004

Ramesh Keshavaraj

5287A

4646

7590
Thomas L. Moses
Legal Department, M-495
PO Box 1926
Spartanburg, SC 29304

02/12/2007

EXAMINER

SINGH, ARTI R

ART UNIT

PAPER NUMBER

1771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

02/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/808,198

Applicant(s)

KESHAVARAJ ET AL.

Examiner

Ms. Arti Singh

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. The Examiner has carefully considered Applicant's remarks dated 12/26/06. The pending claims are 1-18. Applicant's remarks are noted and overcome the 112-2 rejection. However, the 35 USC 103 (a) rejection over USPN 6106038 issued to Dreher in view of USPAP 2001/0049243 A1 issued to Crouch et al is set forth below in a different manner (reversed, the rejection is Crouch in view of Dreher). This is a new grounds of rejection therefore the arguments are moot at this point. With regard to Applicant's traversal that the characterization of the Dreher reference is incorrect and that they teach an external airbag and that the size is twice the size of Applicant's and that the reference does not teach how these folds are brought about. To this the Examiner contends that the reference does teach how the fold are made, this is incorrect as they do teach how their folds are made and stitched by a machining (column 8). In fact, it is suggested that Applicant amend their claims to state how the fold are made and stitched since these are method claims, and perhaps it would breath a little more life into the claims. Applicant's remarks in this matter are not commensurate in scope, as the current claims do not recite how they themselves are made. If Applicant disagrees then they need to point out how it differs from their claims. In sewing, a seam is the line where two or more layers of fabric are held together by stitching. With regard to the notion that the characterization of the art is incorrect, the Examiner refutes this as they both are airbags, and thus Applicant's argument is again not found to be commensurate in scope because the current claims simply state "airbag" not what kind of airbag (external or internal, and if internal, side, passenger, knee etc.) It is suggested that Applicant's amend the claim language to recite what type of airbag they desire. In fact the airbag that Dreher uses is owned by Milliken (the assignee of this Application). The Examiner

Art Unit: 1771

was not relying upon Dreher for the structural makeup. Dreher was relied upon for the teaching of a fold over seam in an airbag, as set forth below.

2. It is strongly suggested that Applicant amend the claims to recite how the folding and stitching is done, by perhaps adding language from Applicant's specification (page 6) where it describes how one achieves the folding and the stitching and how it is different from the prior art. If it not clear by this office action, please call the Examiner so that this case may be furthered along expeditiously.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPAP 2001/0049243 A1 issued to Crouch et al. in view of USPN 6106038 issued to Drecher.

Crouch et al teach a lightweight coated fabric used in airbags wherein the substrate of high tenacity yarns such as nylon polyester, polypropylene or the like which is extrusion coated to make the fabric impermeable to be used in airbags (abstract and column 1, paragraph 0003). The present invention is directed to airbag fabrics that are formed of a substrate of high tenacity yam such as nylon, polyester, polypropylene or the like with an extrusion coating of a thermoplastic material. Because of the extrusion coating, these fabrics may be made of lower denier yarns with a less dense weave. For example, high tenacity yarns formed of deniers in the range of 210 to 660 may be woven with warp and fill densities of 30 to 70 ends per inch. For example, a 420 denier fabric, when coated according to the

Art Unit: 1771

present invention, will result in fabrics having a tear strength to weight ratio of about 10 per oz per yd². As a more specific example, a 4.4 oz/yd.^{sup.2} fabric made of 210 denier yarns and coated according to the present invention should achieve a tear strength of almost 40. High tenacity yarns, i.e., those with tenacity greater than 5 grams/denier, along with the extrusion coating, permit the resulting fabric to exhibit a high strength to weight ratio. This is extremely important in fabrics used in air bags and the like. Crouch et al do not explicitly suggest the structure of the seams around their airbags. Dreher remedies this.

Dreher discloses a silicone coated nylon airbag wherein the machine automatically folds the fabric at the seam such that each thread penetrates four layers of fabric (column 8) alluding one versed in the art to realize that seams are folded over and stitched.

Thus a person having ordinary skill in the art at the time the invention was made would have found it obvious to have used the seams as shown by Dreher in the structural airbag of Crouch. One would have been motivated to use the fold over method to insure that minimal air leaks out the usually stitched edges of the airbag. One would have been further motivated to fold the edges three times to no air leaks out, suppose for a side curtain air bag, which needs to stay inflated.

It should be noted that although the airbag of Dreher is an external airbag, they still teach that in the art of airbag such seams are used, and are used to insure that the airbag does not burst, as a force applied to an external airbag is far greater than that of an internal airbag.


Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti Singh whose telephone number is 571-272-1483. The examiner can normally be reached on M-T 9-5:30pm.

Art Unit: 1771

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Ms. Arti Singh
Primary Examiner
Art Unit 1771

ars